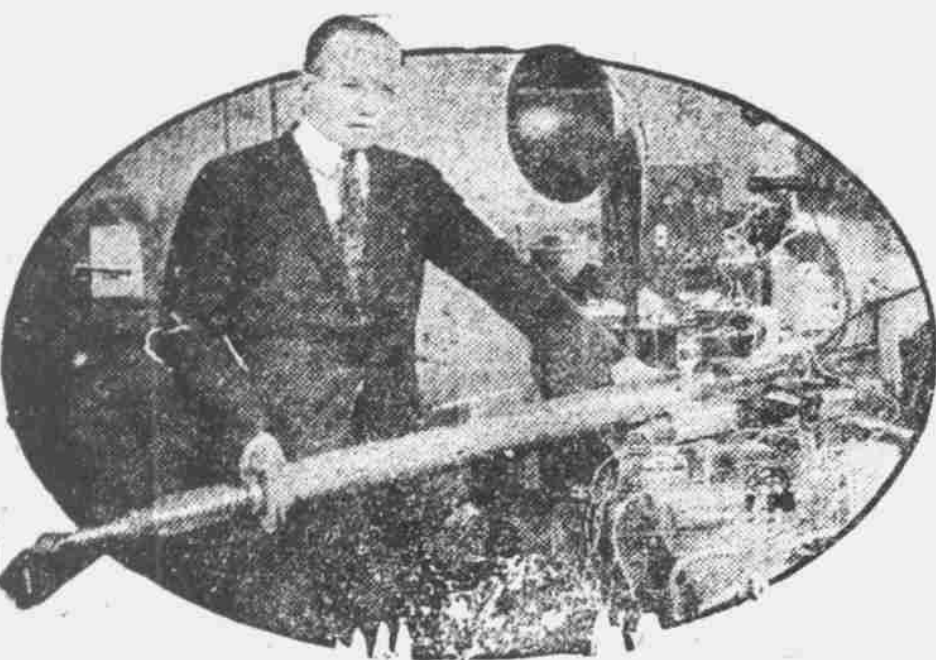


SUNDAY JOURNAL RADIO SECTION

Vacuum Tube Is Developed Into a Huge Power Source



J. H. PAYNE, JR., AND HIS MILLION-WATT TUBE.

Out of the small vacuum tube of the radio set engineers will be able to produce wonders not only in wireless but in other electrical fields.

The extent of these wonders can only be deduced from the great achievements already accomplished while the science is only at its initial stage. One of these—the latest—is the enlargement of the tube until it can include a power that will span the ocean with its radiated waves.

J. H. Payne, Jr., research scientist for the General Electric Company, is the man to whom credit is given for the development of this tube. Before him Dr. Irving Langmuir had brought out a tube, six of which were used recently in the transmission of high frequency waves to Nauen, Germany.

Immense Power.

Payne's product is said to be 50 times as powerful as Langmuir's. Its power output is 40 amperes under a pressure of 25,000 volts. Which means its capacity is 1,000,000 watts.

To conceive the immensity of this tube may be reduced into known terms. For example, the tube weighs 60 pounds

and supplies enough energy to light 1500 average homes. Its filament of tungsten, if drawn into filament the size of that in an ordinary incandescent lamp, would supply enough for 175,000 such lamps.

This tube essentially is intended for the generation and transmission of high voltage direct current and for other engineering work requiring high electrical agency. It serves as a rectifier to change alternating to direct current, direct to alternating, or low frequency to high frequency current.

Good for Radio.

Its efficiency is rated at from 70 to 80 per cent radio transmission. For other electrical purposes, however, it is not so high.

What will be the end of this development of the vacuum tube, none of the engineers in the General Electric laboratories could predict.

"The practical construction of powerful tubes giving thoroughly satisfactory operation requires a great deal more of development work," explained Dr. Langmuir in discussing Payne's invention. "It would be rash, however, to predict the limitation of the ultimate use of the vacuum tubes in the power field."

Youth Seeks Radio Help To Learn Real Identity

By NEA Service.

COUNCIL BLUFFS, Ia., Nov. 11.—Wayne C. Emerick of this city wants to know who he is.

So he has resorted to the radio-phonograph to find out.

Broadcasting stations throughout the land have been requested to send out his call for relatives or anyone who may cast any light on his real identity.

Wayne C. Emerick is the foster name of the young man who, when only five months old, in 1902, was adopted by the Emerick family here. He was only three days old, in September of the year before, when he was left to be cared for by the Christian Home Orphanage here.

"The information at that time," says Emerick, "was that my mother died three days after my birth, and my father shortly afterward disappeared since then I have been unable to find anything of his whereabouts or the place where my mother was buried, if the story concerning her death is true."

Real Name.

Emerick thinks his real name is Clifford Holmes.

"But no available proof has ever been available that it is Clifford Holmes," he adds. "The matron at the orphanage at the time gave this information to my foster parents and I guess that's about the extent of the facts."

Emerick, or Holmes, began broadcasting his request for information about himself from WAAW, the broadcasting station of the Omaha Grain Exchange, at Omaha, Neb. He has sent appeals to other stations for similar services. He has not yet received any help from radio fans who might have listened in.

But Emerick has high hopes for success. Radio, he believes, will help him solve the mystery of himself. He is continuing to send appeals to the radio enthusiasts and their friends through the country's broadcasting stations.



WAYNE C. EMERICK.

Some day he hopes he will hear of his father or his parents' relatives.

Tune In On Grand Opera! Classics to Be Broadcast

The opera selected will be "Aida," and Rosa Raisa, famous Russian soprano, will sing the title role.

Impresarios and music critics the country over have wondered over the possibility of sending out grand opera by means of the ether waves. Some of them doubted its practicability. But many expressed their curiosity to see how such an experiment would be received by the radio public.

First efforts to broadcast grand opera were made through the Metropolitan Opera Company in New York. But nothing was done and the New York company

Radio Will Keep Tots Off Street

Keep your children off the streets by interesting them in radio.

Or, if you can't afford a radio set, try to get the community interested in the safety of the children by this means.

The plan has already been tried with success in New York. Teachers of Athletic Center 62 got together and installed a radio receiving instrument with a loud speaker in the courtyard.

After their school hours the children gathered for athletic practice and were surprised to hear the returns of the world series. They told their chums who had decided to stay out and play in the streets around their homes.

The next day the athletic center was crowded with eager children.

And the streets were cleared for vehicle traffic.

Cable Companies Not Hurt By Radio

NEW YORK, Nov. 11.—Trans-Atlantic radio is not taking any of the overseas business away from the cable companies, says Newcomb Carlton, president of the Western Union Telegraph Company.

"The Radio Corporation of America is today transmitting from 12 to 14 per cent of the eastward and westward business between the United States, Great Britain and Continental Europe," said Carlton. "While a considerable part of this business would no doubt have gone to the cable companies, an important part is newly created traffic."

"The radio rate from New York to London is 18 cents a word, competing against a cable rate of 25 cents. In other words, with rates 30 per cent cheaper, the radio is doing from 12 to 14 per cent of the business."

AMATEUR LIST GROWS.

That interest in wireless has grown considerably is shown by the fact that, in the last 15 months, the number of amateur stations in the United States has increased by more than 50 per cent. There were 10,509 licensed amateurs on June 30, 1921 and 16,467 on Sept. 1, 1922.

BIG RADIO DEMAND.

The enormous demand for radio products in the United States may be surmised from the fact that production increased 21 times from 1911 to 1921, reports the United States Bureau of Standards. The estimated value of apparatus made during 1921 has been placed at \$100,000,000.

DANCE HALL IN SWIM.

Managers of a dancing pavilion in Springfield, O., believe they will boost their clientele by broadcasting their dance music three times a week. Their plan is to send out the music to fans within 35 miles radius.

400 "HAMS" IN CANADA.

More than 400 licenses have been issued to radio "hams" in Canada. The amateurs pay a fee of \$1 for permission to send their messages out into the ether.

WIRELESS ON BUSES.

Travelers on the buses of New York next year will be entertained during their journeys with radio. A large sightseeing bus company of that city made preparations to equip all its vehicles with radio receiving sets.

RADIO IN FACTORY.

Radio has entered the factory. One large British factory has had a radio set installed in the main workroom, so that the employees may listen in on a concert while at work. Other firms have installed radio sets in their employees' restaurants and rest rooms.

RADIO 6500 MILES.

During a cold night recently when atmospheric interference was almost eliminated the wireless station at Batavia, 150 miles southwest of Victoria, B. C., was able to hear Barabara, New Zealand. The distance covered is about 6500 miles.

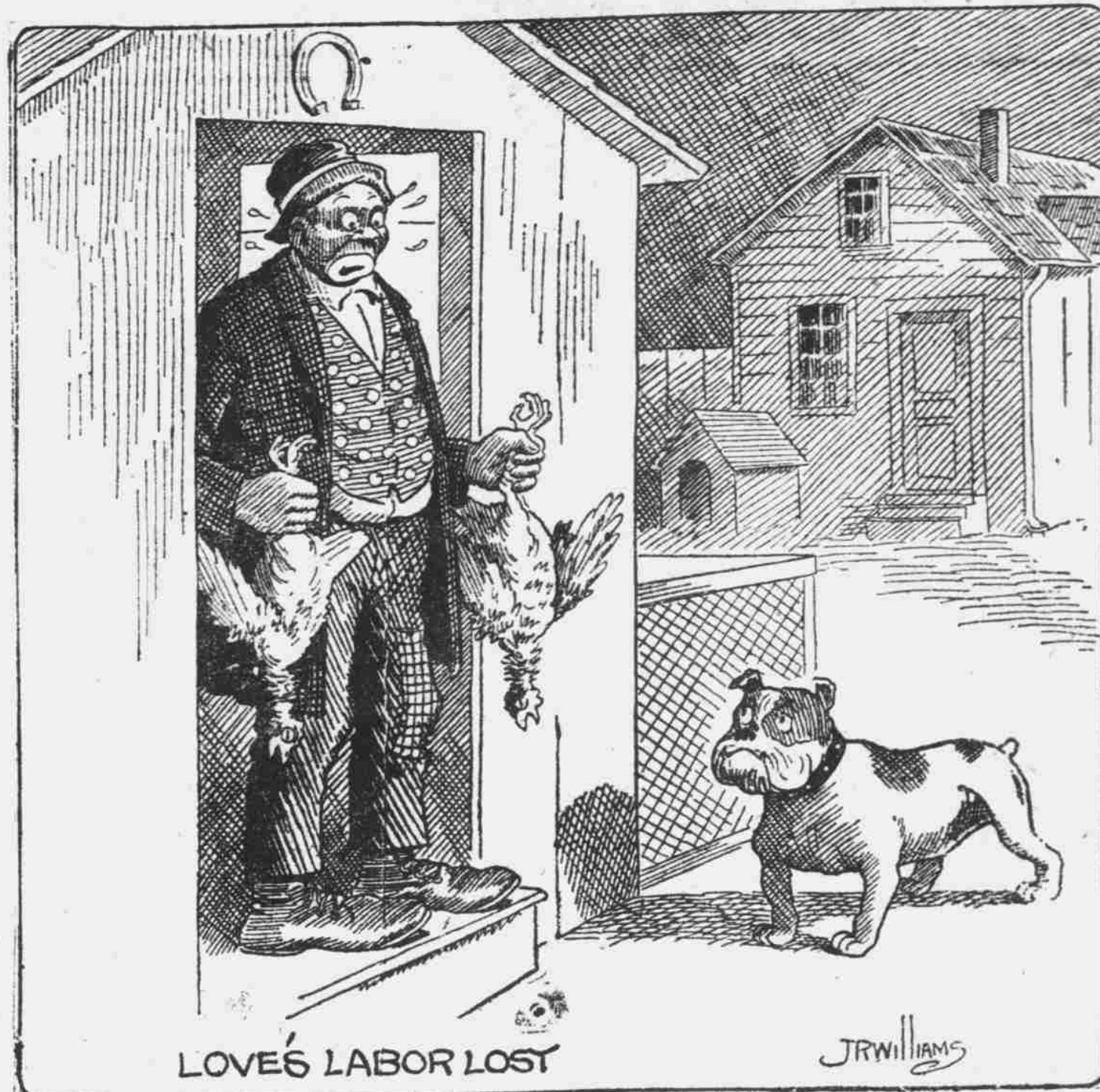
Finally decided to not send out any of its operas by radio.

The experiment here is receiving the hearty cooperation of the Chicago Opera Company officials and the artists. "Aida" will be presented in the Auditorium Theatre on the evening of the 13th, and it will be from there that the music will be sent to broadcasting station of KYYW and into the air for reception of radio fans who can tune in on this station.

Opera selections were broadcast last year, through station KYYW and by artists of the Chicago Opera Company. But the music of last year was merely a sample of what the managers intend to broadcast this season.

The llama, noted as a beast of burden in certain parts of Latin America, can travel only 12 to 15 miles daily, or much more slowly than its relative, the camel.

OUT OUR WAY



DOLLARS AND OIL WILL SETTLE WARFARE



By MILTON BRONNER

NEA Service Staff Correspondent.

LONDON, Nov. 11.—American dollars will be represented at the Turco-Greek peace conference, even if the American government is not.

Powerful dollars, bound up with oil, will exert a tremendous influence when representatives of France, England, Italy, Japan, Rumania, Yugoslavia, Turkey and Greece meet at Lausanne Nov. 13th.

The conference will do more than merely settle peace terms between Turkey and Greece and decide what lands Greece shall hand back to Turkey.

Big Questions to Be Settled.

It will settle these bigger questions: FIRST: Shall the Black Sea be a Russo-Turkish lake?

SECOND: Shall American and French oil interests have an even break with British and Dutch oil interests? Every country, including Soviet Russia and the new republics carved out of old Russian territory—the Ukraine, Georgia and Azerbaijan—are vitally interested. So much that the Soviets insist upon being at the conference, where Leo Kameneff, Soviet cabinet member, may loom as a factor second only in importance to the victorious Mustafa Kemal Pasha.

The Turks and Russians agree that Georgia and the Ukraine should sit in the conference. England and France are not enthusiastic about this, but they are vitally interested in the things that come out of these countries.

A glance at the map discloses why everybody is so interested in the freedom of the straits leading to the Black Sea—for upon this sea are the ports through which must come millions of dollars worth of trade.

Dispute Over Oil.

If the western powers come to an agreement with Turkey and Russia the Black Sea will be everybody's sea, and which must come millions of dollars worth of trade.



MAP SHOWING PORTS OF BLACK SEA WHICH WILL BE VITALLY AFFECTED, ESPECIALLY IN OIL COMMERCE, BY TURCO-GREEK PEACE CONFERENCE. BELOW, TWO LEADERS WHO MAY DICTATE COMMERCIAL TERMS: LEO KAMENEFF, SOVIET CABINET MEMBER (LEFT) AND MUSTAPHA KEMAL PASHA.

coal, wheat, cereals and timber locked up.

The big dispute is over oil—a fight between Standard Oil and the Shell-Royal Dutch group. Rival groups are bidding for French support in the big business game being fought over Asia Minor and Black Sea oil deposits.

Standard Oil is understood to have the inside track now with the French. And French favor is highly important, for everything hinges on the Turco-Greek pact—and France backed the winner, Kemal Pasha, while England backed the loser, Greece.

A primitive type of machine gun of Chinese manufacture, according to an inscription on the barrel, dates from 1607.

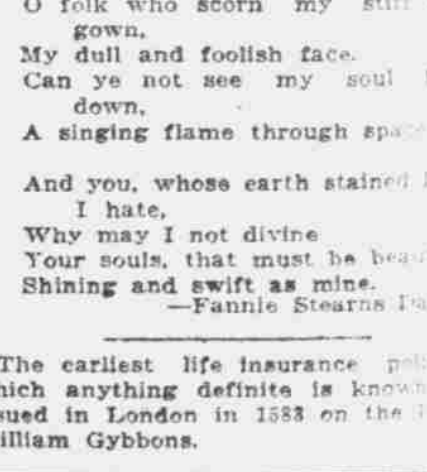
Lady Byng Weds



Lady Eleanor Byng and H. E. Atkinson leaving St. Michael's Church in London after their wedding attended by the leaders of English society.

TAKEN FROM LIFE

Anybody's Baby.



SALESMAN \$AM



Sam's on Time, but—

—By SWAN

By NEA Service.

CHICAGO, Nov. 11.—Get ready to tune in on grand opera!

Prolonged attempts to get the cooperation of large opera companies with radio broadcasting organizations have finally been successful. On the evening of Nov. 13 the Chicago Opera Company will give its first complete radio opera—the first ever to be broadcast by wireless.